

**AMENDMENTS TO THE SPECIFICATION:**

**At page 8, please replace the third full paragraph with the following new paragraph:**

There is further provided a correlator including a first sub-correlator which receives a fixed pattern having a code length  $N$  ( $N = M \times K$ ), as an input signal comprised of signals obtained by spreading a fixed word having a length of K symbols symbol ( $K$  is a predetermined positive integer), at a rate of  $M$  chips/symbol ( $M$  is a predetermined positive integer), and detects a correlation value between a  $k$ -th ( $0 \leq k < K$ ) symbol having a  $M$  chip length, among the fixed pattern, and pseudorandom noise code  $S_m$  ( $m$  is an integer defined as  $k \times M \leq m < (k + 1) \times M$ ), and a second sub-correlator which receives data corresponding to  $K$  symbols, about a correlation value output from the first sub-correlator, and outputs a correlation value between the data and the fixed word.

**At pages 8-9, please replace the bridging paragraph with the following new paragraph:**

There is further provided a correlator including a first sub-correlator which receives a fixed pattern having a code length  $N$  ( $N = M \times K$ ), as an input signal comprised of signals obtained by spreading a fixed word having a length of K symbols symbol ( $K$  is a predetermined positive integer), at a rate of  $M$  chips/symbol ( $M$  is a predetermined positive integer), and detects a correlation value between a  $k$ -th ( $0 \leq k < K$ ) symbol having a  $M$  chip length, among the fixed pattern, and pseudorandom noise code  $S_m$  ( $m$  is an integer defined as  $k \times M \leq m < (k + 1) \times M$ ), a memory which stores a predetermined number of correlation values per a symbol which correlation values are transmitted from the first sub-correlator and are different in a phase from one another with respect to the input signal, and which stores correlation values totally corresponding to K symbols symbol, and a second sub-correlator which receives data corresponding to  $K$  symbols, read out of the memory every the predetermined number,

*B2*  
*cont*  
and outputs a correlation value between the data and the fixed word.

**At page 9, please replace the first full paragraph with the following new paragraph:**

*B3*  
There is further provided a correlator which receives a fixed pattern having a code length  $N$  ( $N = M \times K$ ) which fixed pattern is obtained by spreading a fixed word having a length of  $K$  symbols symbol ( $K$  is a predetermined positive integer), at a rate of  $M$  chips/symbol ( $M$  is a predetermined positive integer), including a first sub-correlator which receives the fixed pattern as an input signal, and detects a correlation value between a  $k$ -th ( $0 \leq k < K$ ) symbol having a  $M$  chip length, among the fixed pattern, and pseudorandom noise code  $S_m$  ( $m$  is an integer defined as  $k \times M \leq m < (k + 1) \times M$ ), a memory which stores a predetermined number ( $L$ ) of correlation values per a symbol which correlation values are transmitted from the first sub-correlator and are different in a phase from one another with respect to the input signal, and which stores  $L \times K$  correlation values totally corresponding to  $K$  symbols symbol, a reading-address controller which outputs a reading-address used for reading data corresponding to  $K$  symbols symbol out of the memory by every  $L$  correlation values, and a second sub-correlator which receives the data corresponding to  $K$  symbols symbol, read out of the memory by every  $L$  correlation values, and outputs a correlation value between the data and the fixed word.

**At pages 12-13, please replace the bridging paragraph with the following new paragraph:**

*B4*  
*cont*  
The first sub-correlator 10 receives an input signal 11 and coefficient series  $S_i$  ( $i = 1, 2, \dots, M$ ) having a length  $M$ , used for detecting correlation with the input signal 11, detects correlation (multiplication and addition) between them, and outputs the correlation value 12. The second sub-correlator 20 receives the correlation value 12 transmitted from the first sub-correlator 10, and coefficient series  $U_i$  ( $i = 1, 2, \dots,$

*B4  
Cont*  
K) used for detecting correlation with K output series of the correlation value 12, detects correlation between them, and outputs a correlation value 21.

**At page 13, please replace the fourth full paragraph with the following new paragraph:**

*B5*  
For instance, if the correlator illustrated in FIG. 8 were comprised of the first sub-correlator 10 and the second sub-correlator 20 both illustrated in FIG. 1(a), a time necessary for calculation of a correlation value is in proportion to not  $(M \times K) (M + K)$ , but  $(M + K)$ .

**At page 14, please replace the first full paragraph with the following new paragraph:**

*B6*  
The first sub-correlator 10 receives an input signal 11 and coefficient series  $S_i$  ( $i = 1, 2, \dots, M$ ) having a length M, used for detecting correlation with the input signal 11, detects correlation (multiplication and addition) between them, and outputs the correlation value 12. The second sub-correlator 20 receives the correlation value 12 transmitted from the first sub-correlator 10, and coefficient series  $U_i$  ( $i = 1, 2, \dots, K$ ) used for detecting correlation with K output series of the correlation value 12, detects correlation between them, and outputs a correlation value 22. The third sub-correlator 30 receives the correlation value 22 transmitted from the second sub-correlator 20, and coefficient series  $V_i$  ( $i = 1, 2, \dots, L$ ) used for detecting correlation with L output series of the correlation value 22, detects correlation between them, and outputs a correlation value 21.

**At page 14, please replace the second full paragraph with the following new paragraph:**

*B7  
Cont*  
In the correlator illustrated in FIG. 1(b) 4(e), a total length of the first to third sub-correlators 10, 20 and 30 is equal to  $(M + K + L)$ . Hence, the correlator can

significantly reduce a circuit size in comparison with a conventional correlator (length =  $M \times K \times L$ ) corresponding to the correlator illustrated in FIG. 1(c). In addition, it is possible to increase an operation rate in calculation of a correlation value.

*B1  
Concl*